COLSF 8.4 VI



October 14, 1993

Mr. Mike Kuntz Washington State Department of Ecology P.O. Box 47600, Olympia, WA 98504-7600

RE: COLBERT LANDFILL RD/RA PROGRESS REPORT JUNE THROUGH SEPTEMBER 1993

Dear Mr. Kuntz:

Presented herein is the June through September 1993 Progress Report for the Colbert Landfill Remedial Design/Remedial Action Superfund Project (Project), which was prepared by Landau Associates, Inc., Spokane County's engineering consultant. This progress report addresses the reporting requirements specified in Section XI of the Project Consent Decree, including:

- Remedial action activities commenced or completed during the reporting period
- Remedial action activities projected to be commenced or completed through October 1993
- Any problems that were encountered or are anticipated.

1.0 ACTIVITIES COMMENCED/COMPLETED DURING REPORTING PERIOD

Activities commenced and/or completed during this reporting period include completion of initial Phase II groundwater sampling, selection of the general contractor and air stripping tower manufacturer/vendor, collection of groundwater elevation data from the Upper and Lower Aquifers, preparation of a memorandum describing changes to the groundwater extraction system, and initiation of construction of the remedial action. Specific activities performed during this reporting period include:

• Initial Phase II groundwater sampling and analyses were completed, and the resulting data were validated. Groundwater samples were collected from 53 monitoring wells, 10 extraction wells, and 2 domestic wells in May and June 1993. Samples were field tested for pH, specific conductance, turbidity, and temperature, and samples were forwarded to Columbia Analytical Services for volatile organic analyses and a limited number of turbidity analyses. Analytical data were validated, and no data were rejected. A summary of detected compounds for volatile organic analyses are presented in Table 1.



- Groundwater elevation measurements were collected in June 1993 from 60 monitoring, 11 extraction, and 32 domestic wells screened in the Upper or Lower Aquifers. These data were collected to establish background data prior to implementation of the remedial action.
- Humphrey Construction, Inc. of Woodinville, Washington was selected as the general contractor for construction of the remedial action. Humphrey Construction was the lowest responsive and responsible bidder, and a contract was executed between Spokane County and Humphrey Construction on August 12, 1993.
- Ershigs, Inc. of Bellingham, Washington was selected as the manufacturer/vendor for the air stripping treatment equipment for the remedial action. Ershigs was the lowest responsible bidder, and a contract between Spokane County and Ershigs was executed on September 20, 1993.
- Construction of the remedial action was initiated by Humphrey Construction on August 18, 1993. Landau Associates' representative (George Rohling) has been onsite full time to monitor construction activities. Taylor Engineering (Landau Associates' subconsultant) has been onsite periodically to observe construction of remedial action components for which it had primary design responsibility. Sverdrup Corporation (Landau Associates' subconsultant) has assisted with review of submittals for which it had primary design responsibility. Construction through the end of September included clearing, grubbing, and grading for the treatment facility; excavation and concrete form work for the treatment facility foundations; and preliminary site work at some extraction well locations. Submittals on approximately 60 percent of the major equipment items for the facility have been received, processed, and returned to the Contractor. The project is estimated to be 11 days behind schedule due to delays associated with obtaining the building permit.
- A technical memorandum was prepared by Landau Associates describing the changes to the South and West Interception Systems, and East Extraction System that have occurred as the result of property access limitations and conditions encountered during Phase II well construction. A draft of this memorandum was forwarded to Ecology (Mike Kuntz) in July. The final draft will be forwarded to EPA and Ecology by Spokane County by mid-October.
- Water quality sampling for the Little Spokane River was initiated in mid-July, in response to Bonnie Rose's (Ecology) July 12, 1993 focus sheet on NPDES issues. Samples are being collected every two weeks through October from four locations between the mouth of the river and about 1 mile upstream of the Phase II outfall. All samples are being analyzed for total phosphorus, and one sample (at the outfall) is being analyzed for algal growth potential. Results will provide background data to compare against river water quality during Phase II operation, and will be forwarded to Ecology after sampling and analyses are completed for the last October sampling event.

2.0 ACTIVITIES/PROJECTS TO BE COMMENCED/COMPLETED DURING THE NEXT REPORTING PERIOD

Because construction has resumed, progress report submittal frequency will revert to monthly until construction is complete, as prescribed in the project Consent Decree. Therefore, the next reporting period will extend through October 1993. Anticipated activities for October include:

- Continuing remedial action construction. Anticipated construction activities include:
 - Construction of conveyance piping
 - Installation of extraction well vaults
 - Construction of treatment facility foundations, floor slabs, subsurface piping, underground electrical, and other components.
- Initiating air stripping treatment equipment fabrication. Manufacturer submittals will be reviewed, and air stripping tower fabrication should commence by late October. It is anticipated that the air stripping tower treatment equipment will be delivered to the site by early December 1993.
- Preparing a letter addressing EPA and Ecology comments on the final treatment and discharge plan (by late October).
- Submitting data validation reports to EPA and Ecology for May/June 1993 sampling event (by late October).

3.0 ENCOUNTERED/ANTICIPATED PROBLEMS

No problems were encountered during the reporting period or are anticipated for the next reporting period. Construction is progressing, and it is anticipated that construction will be completed by February 1994. System start up will probably require 1 to 2 months following completion of construction, so it is anticipated that the remedial action will be operational by April or May 1994.

Because of the changing nature of the project, Landau Associates has changed project managers. John Markus, P.E., is now the Landau Associates' project manager and should be contacted for any issues related to project construction or start up. Larry Beard will remain involved in the hydrogeologic, regulatory, and compliance aspects of the project.

This report describes progress on only the primary Project remedial action activities. There are peripheral activities associated with the primary activities which are not described herein. If clarification is required for any of the activities presented in this progress report, or if additional information is desired for peripheral activities, please contact Landau Associates or Dean Fowler (Spokane County).

LANDAU ASSOCIATES, INC.

By:

John A. Markus, P.E.

Project Manager

JAM/LDB/sms No. 124002.120

cc: Neil Thompson, U.S. EPA

Dean Fowler, Spokane County

Lyle Diedieker, Ecology & Environment, Inc.

COLBERT LANDFILL RD/RA SUMMARY OF DETECTED COMPOUNDS VOC ANALYSIS RESULTS (a) MAY/JUNE 1993 GROUNDWATER SAMPLES

Well	_		_	Well (tp+(b)	Extraction System (c): N/A (e)	Date Sampled			1,1,1-TCA	1,1-0CE	1,1-DCA	Mothydene Chloride	TCE	PCE	Vikıyl Chloride	1,2-Di- chloro- ethane	1,2-Di- chloro- propane	Chlore- form	Trichloro- fluoro- methane	Chloro- ethane	1,1,2,2 Tetra- chlore- ethane	Dictiloro- diffuoro- methane	Trichlore- trifluore- ethane	cis-1,2- Dichlore- ethene
60				G		21-Jun-93	609	G	1600	4.5	64	340 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	18	25	0.5 U	0.5 U	25	0.5 U	0.5 U
00				G	NA	09-Jun-93	594	G	690	74 J	70 63	2.0 U	2.7	0.5 U	0.5 U	0,5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	Q.5 U	1.3
00	_	_	_	G	N/A	02-Jun-93	566	G	37	6.0	0.9	2.0 U	210 0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.0	9.2	5.5	0.5 U	12	0.5 U	26
co	_	_	-	G	NA	02-Jun-93	687	G	0.5 U	0.5 U	0.5 U	20 U	0.5 U	4.6	0.5 U	0.5 U	0.5 U	0.5 U	1.0	0,5 U	0.5 U	1.0	0.5 U	0.5 U 0.5 L
00	_		_	G	NA	03-Jun-93	571	ī	2000	580	93 /	230 U	170 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.0	0.5 U	0.5 L
0				G	NA	03-Jun-93	571	G	2500 J	1100	0.5 LI	50	19	7.3	150 U 8.4	80 U	200 U	90 U	100 U	200 U	120 U	200 U	NTM	NT
CD (05 0	2 2	2	G	N/A	01-Jun-93	583	G i	3.6 U	0.5 U	0.5 U	5.0 U	0.5 U	0.5 U	0.5 U	6.8	0.5 U	0.5 U	38	7.4	0.5 U	14	0.5 U	3.4
CD	06	A 1	1	G	N/A	04-Jun-93	576	G	190 J	27	11	2.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	3.4 0.5 U
00	06	3 2	2	G	NA	04-Jun-93	577	G	20	3,3	0.5 U	2.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.6 U	0.5 U	1.0 U	0.5 U	0.5 U
OD (07	1	t I	G	N/A	04-Jun-93	578	G	3.4	3.7	1.9	2.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U
CD	08	2	2	G	NA	17-Jun-93	606	1	730	110 J	80 U	650 U	170 U	100 U	150 U	80 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U
00	36	2	2	G	NA	17-Jun-93	808	G	620	170	54	12 U	31	0.5 U	0.5 U	0.5 U	0.5 U	90 U	100 U	200 U	120 U	200 U	NF	NT
CO	21 (;] ī	1	G	N/A	28-May-93	558	D	1600 J	350 J	50	90	2.0	0.5 U	4.6	0.5 U	0.5 U	5.5	25	9.4	0.5 U	53	0.5 U	0.5 U
_	n c			G	NA	28-May-93	557	G	1200 J	330 J	57	80	2.8	0,5 U	4.8	0.5 U	0.5 U	7.3	27	3.8	0.5 U	16	0.5 U	0.5 U
	1 0			G	N/A	27-May-93	556	G	230 J	20 J	3.0 J	0.5 13	0.5 134	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	1,7 J	3.4	0.5 U	24	0.5 U	0.5 U
	2 0		1.	3		01-Jun-93	562	G	0.5 U	0.5 U	0.5 U	2,0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	6.5 U	0.5 U	0.5 U	0.5 13	1.0 UJ	0.5 LU	0.5 UJ
20 2		_	_	G		08-Jun-93	589	a	140	6.7	0.5 U	2.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U
20 2	_	_	_	G		04-Jun-63	579	G	310 7	55	2.8 U	2.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5.8 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U
20 2	_	_		G		01-Jun-93	564	D	1600 J	570	84	2000 LJ	30	3.1	17	0.5 U	0.5 U	13	43	16	0.5 U	2.0 U	0.5 U	0.5 U
20 2				G	_	01-Jun-93	661	G	2000 J	580 J	95	2200 UU	36	3.2	18	0.5 U	0.5 U	14	60	0.5 U	0.5 U	60	0.5 U	4.9
20 2				G.		01-Jun-93	565	g	500	93	66	2.0 U	130	0.5 U	0.5 U	0.5 U	0.5 U	3.0	6,1	16	0.5 U	6.0	0.5 U	7.2
2D 3				G.		26-May-93	645	G	180 J	10	95	0.5 U	13	0.5 U	0.5 1/	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	2.7
2D 3		_	_	힀		26-May-93	552	G	0.6 U	0.5 U	0.5 U	0.5 U	0.6 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0,5 U	0.5 U	1.0 U	0.5 U	0.5 U
D 3	_	+		a	_	08-Jun-93	590	G	0.6 U	0.8 U	0.5 U	2.0 U	U 3.0	0.5 U	0.5 U	0.5 U	0.5 U	9.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5 U
0 3				G		03-Jun-93	574	B	14	2.0	0.6 U	2.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0	0.5 U	0.5 U
0 3				0		25-May-93	548	G	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	06 11
0 3				-		27-May-93	553 555	G	1.0 UJ	0.5 W	0.5 UJ	0.5 UJ	0.5 UJ	0.5 W	D.5 UJ	0.5 UJ	0.5 W	0.5 UJ	0.5 133	0.5 UJ	0.5 UJ	1.0 UJ	0.5 UJ	0.5 U.
20 3				D		7-May-93	554	D	58 J	0.5 W	0.9 J	0.5 UJ	0.5 UJ	U.5 U.U	Q.5 UJ	0.5 UJ	0.5 LU	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	1.0 UJ	0.5 UJ	0.5 W
0 3	_	i	_	 		7-May-93	659	G	70 J	0.6 UJ	1.7 J	0.6 111	D.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UV	0.5 UJ	0.5 UJ	D.5 UJ	0.5 UJ	1.0 (3)	0.5 UJ	0.5 UJ
- 3	10	1	1_		9 2	-may-w3	pole	G	0.5 W	0.5 UJ.	0,6 W	0.5 UV	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.6 UJ	0.5 UJ	1,0 0,1	0.5 W	0.6 UJ

TABLE 1

COLBERT LANDFILL RD/RA SUMMARY OF DETECTED COMPOUNDS VOC ANALYSIS RESULTS (a) MAY/JUNE 1993 GROUNDWATER SAMPLES

Noil f		_	Well Type (b)	Extraction System (c)	Date Sampled		Sample Type (d)	1,1,1-TCA	1,1-DCE	1,1-DCA	Methylene Chloride	TOE	PCE	Vinyl Chloride	1,2-Di- ohloro- ethane	1,2-Di- chlore- propane	Chloro-	Trichlero- fluoro- methane	Chioro-	1,1,2,2- Tetra- chloro- ethane	Dichlore- difluero-	Trichloro- trifluoro-	cis-1,2 Dichlor
20 4			G	N/A	26-May-93	561	a	160 J	2.7	9.7	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U		methane	ethane	ethene
20 4	0 0	2	G	N/A	26-May-93	550	G	0.5 U	0.6 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U		0.5 U	1.0 U	0.5 U	0.
20 4	0 0	3	G	N/A.	26-May-93	549	G	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U		0.5 U	0.5 U	1.0 U	0.5 U	0.
20 4			0	W	04-Jun-83	580	G	0.5 U	0.5 U	0.5 U	2.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U		0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	
20 4	1 0	2	D	W	04-Jun-93	681	G	0.5 U	0.5 U	0.5 U	2.0 U	0.5 U	0.5 U	0.6 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.6 U	1.0 U	0.5 U	-
0 4	‡ Ç	3	.D.	. W .	08-Jun-93	583	G	3.1	0.5 U	0.6 U	2.0 U	0.5 U	0.6 U	0.5 U	0.5 U	0.6 U		0.5 U	0.5 U	0.5 U	1,0 U	0.5 U	0
0 4	2 0	1	D.	W	D6-Jun-93	593	G	0.5 U	0.5 U	0,5 U	2.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.6 U	0.5 U	0.5 U	0.5 U	1.0	0.5 U	0
0 4	2 0	2	. D -	· W	08-Jun-93	592	G	7,1	0.5 U	0.5 U	2.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	(
0 4	2 C	3	D	W	08-Jun-93	591	G	0.5 U	0.5 U	0.5 U	2.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	
0 4	3 0	1	D	W	20-May-93	533	G	0.6 U	0.5 U	0.5 U	2.0 U	0.5 U	0.5 U	9.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	
0 4	3 C	2	D	W	20-May-93	534	G	0.5 U	0.5 U	0.5 U	2.0 U	0,5 U	0.5 U	0.5 U	0.5 U	0.5 U	-	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	
14	3 C	3	D	₩ .	20-May-93	632	g	0.5 U	0.5 U	0.5 U	2.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	
14	1 0	1	Ó	W	25-May-93	547	G	0.5 U	0.5 U	0.5 U I	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U		0.5 U	0.5 U	0.5 U	G.5 U	1.0 U	0.5 U	
4	i c	2	D	W	24-May-93	541	G	1.3 U	0.5 U	0.5 U	2.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	
1	C	3	D	W	25-May-93	548	G	0.6 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	9.5 U	
4	C	1	D,C	W	02-Jun-93	568	G	0.5 U	9.5 U	0.5 U	2.0 U	0.5 U	9.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	
4	s c	2	D,C	W	02-Jun-93	570	G	0.5 U	0.5 U	0.5 U	2.0 1/	0.5 U	0.5 U	-	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	
14	c	3	D,C	W	02-Jun-93	569	G	0.5 U	0.5 U	0.5 U	2.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 LJ	0.5 U	1.0 U	0.5 U	
44	C	2	a	N/A	24-Meg-93	540	0	2300	740	50	750	2.2		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	9,5 U	1.0 U	0.5 U	
	C		g		24-May-93	539	G	2500	430	56	410	2.7	0,5 U	0.5 U	Q.5 U	6.0 U	3.5	37	0.5 U	0.5 U	53	2.2	
		2	G		28-May-93	560	G	36	5.6	0.5 U	2.0 U	-	0.5 U	0.5 U	0.5 U	6.0 U	4.5	40	0.5 U	0.5 U	68	1.6	I
_	C	_	D.C	W	07-Jun-93	586	G	0.5 U	0.5 U	0.5 U		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1,0 U	0.5 U	4
	C		D;C	W	07-Jun-93	587	G	0.5 U	0.5 U	0.5 U	2.0 U	0.5 U	0.5 U	0.5 U	0.5 tr	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	(
_	C		D,C	W	07-Jun-93	588	G	0.5 U	0.5 U	0.50 U	-	0.5 U	0.5 U	0,5 ป	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	-
T	A	1 1	- D	_	27-lágy-93	554	~	29 J	1.4 J	1.3 J	2.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	-
	C	1	E	Ē	16-Jun-93	602	G	3400 J	1400 J	220 J	10 UJ	1.7 U	1.0 W	1.5 UJ	0.9 UJ	2.0 LU	0.9 UJ	1.0 UJ	2.0 W	1.2 UJ	2.0 UJ	NT	TSI
E	_	_	E	Ē	15-Jun-93	602	1	3100 J	660 J	56 J	2400 U	93 J	6.7 J	0.5 U	0.5 U	0.5 U	16 J	79 J	11 J	0.5 U	59 J	0.5 U	
_	E	_	E	E	11-Jun-93	597	G	1200	650 :		2100 W	170 UJ	100 UJ	150 UJ	80 W	200 UJ	90 W	100 UV	200 UJ	120 UJ	200 VJ	NT	NI
_	c		E	E	14-Jun-93	598	G	2600	910	240	13 0	620	6.4	0.5 U	0.5 U	0.5 U	6.2	Q:5 U	29	0.5 U	13 J	0.5 U	1
_	A		E		26-May-93	544				110	170 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	6.6	52	0.5 U	0.5 U	26 J	0.5 U	0
_	A		0		21-May-93	538	G G	220 J	46	45 J	0.5 U	15	0.5 U	0.5 U	0.5 U	0.5 U	0.6 U	0.6 U	0.5 U	0.5 U	1.0 U	0.5 0	3
	A		E		21-May-93	537	a	0.6 U	0.6 U	0,6 U	2.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0,5 U	0.6 U	0.6 U	0,5 U	1.0 U	0.5 U	0
	Â		E		21-May-93	638	G	105	10	53	2.0 U	14	3.8	0.6 U	0.6 U	0.5 U	0.8 U	0.8 U	0.6 U	0.5 U	1.0 U	0.B U	0
96		_	Ē		20-May-93	635			6.6	7.8	2.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0,5 U	1.0 U	0.5 U	0.
100	10		-	4	ro-walt-193	030	G	45	8.8	7.2	2.0 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.

16:

TABLE 1

COLBERT LANDFILL RD/RA SUMMARY OF DETECTED COMPOUNDS VOC ANALYSIS RESULTS (a) MAY/JUNE 1993 GROUNDWATER SAMPLES

W	Volt	Nun	the	r	Well Type (Extraction System (c)	Date Sampled		Sample Type (d	1,1,1-TCA	1,1-DCE	1,1-DCA	Methylene Chloride	TOE	PCE	Virgi Chloride	1,2-Di- chloro- othane	1,2-Di- chloro- propune	Chiloro- form	Trictsfore- fluoro- methane	Chloro- ethane	1,1,2,2- Tetra- chlore- ethane	Dichloro- dilluoro- methene	Trichloro- trifluoro- ethane	cis-1,2- Dichlere- ethene
C	2	111	Ç	2	E		₩	10-Jun-83	596	G	60	0.6 U	0.5 U	2.0 U	0.5 U	0.5 U	9.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.0 U	0.5 U	0.5
C	P	H2	C	2	E	T	₩	00-Jun-93	595	G	12	0.6 U	0.5 U	2.0 U	D.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1,0 U	0.5 Ü	0.5
:0	2	КЗ	C	2	E	T	W	18-Jun-93	903	G	1800	180	30	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.3	25	4.6	0.5 U	30	2.8	0.5
C	2	N3	C	2	E	T	₩ :	18-Jun-93	804	D	2000	240	30	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1.8	23	4.9	0.5 U	32	1.9	0.6
C	3	04	A	1	G	T	N/A	03-Jun-03	676	G	2.5	8.9	72	2.0 U	2.2	0.6 U	0.5 U	1.1	0.5 U	0.5 U	0.5 U	6.9	0,6 U	1,0	0.5 U	1.8
0	8	14	C	1	G	T	- N/A	14-Jun-03	599	G	180	34	6.0	20 U	0.6 U	0.5 U	0.5 U	0.5 U	0.6 U	0.6 U	0.5 U	0.5 U	0.5 U	1.0 W	0.5 U	0.5
, C	8	14	0	1	G	T	. NA	21-Jun-83	800	G	1.0 U	0.8 U	0.5 U	2.0 U	0.6 U	0.5 U	0.5 U	0.5 U	0.6 U	0.8 U	0.5 U	0.6 U	0.6 U	1.0 U	0.5 U	0.5
0	2	23	P	3	P	Т	N/A	18-Jun-93	608	G	63	12	0.6 U	2.0 U	0.5 U	0.5 U	0.5 U	0.6 U	0.6 U	0.5 U	0.5 U	0.6 U	0.6 U	1.0 U	0.5 U	0.5
7	6	73	Н	4	P	T	N/A	18-Jun-93	807	G	81	15	13	2.0 U	0.6 U	0.5 U	0.5 U	0.5 Ú	0.5 U	0,5 U	0.5 U	0,6 U	0.5 U	1.0 U	0.5 U	0.5
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- (a) All results in ugd.. Data qualifiers are explained as follows:

 U Analyte not detected at the detection limit indicated.

 - I Analyte was identified, but associated numerical value is approximate.
 - UJ Analyte not detected; however, the detection limit indicated is approximate.
 - (b) D = downgradient compliance monitoring well.
 - C crossgradient compliance monitoring well.
 - G general groundwater quality monitoring well.
 - P private well. (Note: domestic well sampling program well ID number used)
 - (c) S = South System.
 - W West System.
 - E . East System.
 - (d) G = general water quality sample.
 - C = compilance monitoring sample.
 - D duplicate sample.
 - 1 Interiaboratory duplicate sample.
 - (e) N/A Not applicable.
 - (i) NT Not tested.

LANDAU ASSOCIATES, INC.

10/14/93

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